# RESEARCH PROJECT REPORT

## *IT & e-business Models And Capability Assessment of Telecommunication Infrastructure in Sri Lanka*

*by*



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# Declaration

"I certify that this dissertation does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any University to the best of my knowledge and belief it does not contain any material previously published, written or orally communicated by another person except where due reference is made the text."

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# ABSTRACT


## *IT & e- Business Models and Capability Assessment of Telecommunication Infrastructure in Sri Lanka*

The Telecommunication market in Sri Lanka is extremely competitive; especially in the areas of wireless fixed access services, cellular mobile services and data communication services. E- commerce is associated with the buying and selling of information, products and services via computer networks today and in the future via networks that make up the information superhighway (I-Way). E-commerce applications will be built on the existing technology infrastructure. Government of Sri Lanka(GOSL) started a program named "**e – Sri Lanka"** recently, planning to establish wide spread use of information and communication technologies (ICT) for the development of the economy of Sri Lanka , reduce poverty and improve the quality of life of the people. However , in terms of coverage, capacity, competitiveness and affordability, the national telecommunication infrastructure is in need of further vast developments to achieve the objectives of the e-Sri Lanka program.



Use of unregulated applications(IEEE 802.11b ) technology provide cost effective communication links for rural multi-purpose Community Telecenters, improving their economic viability and encouraging their deployment. These products integrated with beam forming antenna technology to provide high capacity wireless access systems. 45 million business laptops will use IEEE 802.11b standard by 2004 ("All net All time "Business Week, April 29, 2002).

This research studies the current status of the available telecom infrastructure in Sri Lanka, and makes recommendations on the broad development of a comprehensive Sri Lanka Information Infrastructure (SLII), and the development of skilled personnel in the communications sector. This Information Infrastructure encompasses all facets of the rapidly evolving ICT sectors; ensures that all citizens are given the maximum opportunity to contribute to and benefit from the ICT revolution.

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## ABBREVIATIONS

| | |
|---|---|
| **3G** | Thired Generation |
| **ADSL** | Asymetric Digital Subscriber Line |
| **AMPS** | Advanced Mobile Phone System |
| **AOC** | Advice of Charge |
| **ASP** | Alliance Service Providers |
| **B2B** | Business to Business |
| **B2C** | Business to Consumer |
| **BK** | Book Keeper |
| **BRA** | Basic Rate Interface |
| **C** | Customer |
| **C2B** | Consumer to Business |
| **C2C** | Consumer to Consumer |
| **CFAR** | Collaborative Forecasting and Replenishing |
| **CLI** | Caller Line Identification |
| **CPA** | Cartered Public Accountants |
| **CPE** | Customer Premises Equipment |
| **DAP** | Dilivery Alliance Partner |
| **DBS** | Direct Broadcast Satellite |
| **DBS** | Data Base |
| **DEL** | Direct Exchange Line |
| **DID** | Direct Inward Dialing |
| **DOD** | Direct Outward Dialing |
| **e-Business** | Electronic Business |
| **EC** | E Commerce |
| **e-Commerce** | Electronic Commerce |
| **EDI** | Electronic Data Interchange |
| **e-gorernance** | Electronic Governance |
| **e-infrastructure** | Electronic Infrastructure |
| **e-learning** | Electronic Learning |
| **e-mail** | electrionic mail |
| **FAU** | Fixed Access Unit |
| **GDP** | Gross Domestic Priduct |
| **HTML** | Hypertex Markup Language |
| **ICT** | Information & Communication Technology |
| **IDD** | International Direct Dialing |
| **IFC** | International Finance Corporation |
| **IITC** | International Information Technology Committee |
| **IPO** | Initial Public Offering |
| **ISDN** | Intigrated Service Digital Network |
| **ISP** | Internet Service Provider |
| **IT** | Information Technology |
| **ITU** | Internatioinal Telecommunication Union |

| | |
|---|---|
| **I-Way** | Information Super Highway |
| **I-Way** | Information SuperHigh Way |
| **LAN** | Local Area Network |
| **LCS** | Lanka Cellular Service |
| **LEARN** | Lanka Education and Research Network |
| **LKR** | Lanka Ruphees |
| **MAP** | Marketing Alliance Partner |
| **MB** | Mega Byte |
| **MMDS** | Multichannel Multipoint Distribution Service |
| **MS** | Mobile Station |
| **NMT** | Nordic Mobile Telephone System |
| **PC** | Personal Computer |
| **RAS** | Radio Access System |
| **RNC** | Radio Node Controls |
| **SDH** | Synchronous Digital Hierarchy |
| **SHF** | Super High Frequency |
| **SLT** | Sri Lanka Telecom |
| **SLT** | Sri Lanka Telecom |
| **SMS** | Short Message Service |
| **TACS** | Total Access Communication System |
| **USA** | United States of America |
| **VAN** | Value Added Network |
| **VC** | Venture Capital |
| **VLAN** | Vertual Local Area Network |
| **VRML** | Vertual Reality Markup Language |
| **WAN** | Wide AREA Network |
| **WLAN** | Wireless Local Area Network |
| **WLL** | Wireless Local Loop |